REMARKS

I. Introduction

Claims 1-3 and 5 are pending in this application, claim 1 has been amended to incorporate the elements of canceled claim 4. Claims 3 and 5 have been amended to obviate the rejections under 35 U.S.C. § 112, second paragraph.

No new matter has been added.

II. Claim Rejections Under 35 U.S.C. § 112, second paragraph

Claims 3 and 5 were rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. Applicants respectfully disagree. However, in an effort to expedite prosecution, claims 4 and 5 have been amended, to address the Examiner's objection to the terms "as such" and "else by," thereby obviating the rejections.

III. Claim Rejections Under 35 U.S.C. § 102(b)

Claim 1 was rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Anderson et al U.S. Patent No. 3,399,839 ("Anderson"). Applicants respectfully disagree.

Claim 1 recites a process for the production of wheat flour or semolina starting from respective caryopses.

The following is a comparison of the prior art and the instant claims.

Anderson discloses adjusting in increments, the moisture content **corn** to within the range from about 19 to about 23% by weight, and then without substantial time lag subjecting the corn to an abrading action of a wire brush so as to remove bran from the **corn** prior to milling. (See Anderson at col. 2, lines 18-47).

This moisture adjustment is described in Anderson as being carried out in two steps: in the first step, the moisture content is brought to 15-17% and in the second step; it is brought to 19-23%. In the first step, the corn is held in the temper bin for 30 minutes to several hours or more. In the second step, the moisture absorption of the corn is accurately monitored so that the corn can be transferred to the brush machine as soon as the desired moisture distribution is attained. This typically requires 5 minutes. Anderson also stresses (col. 2, lines 27-35) that, prior to grinding, it is not the absolute moisture content that matters, but mainly the distribution of the moisture throughout the kernel. In particular, it is important that in the second step the moisture be contained to the hull and the germ layer.

Anderson explains, in fact, that the moisture content of and the moisture distribution in the corn at the time of contact with rotary wire brushes (which detach the hulls from the germ and endosperm) is relatively critical and must be within the prescribed range (col. 2, lines 44-47).

In contrast, the subject matter of claim 1 does not require the husk to be at a different moisture content than the endosperm at the time of exposure to the brush machine. Quite the contrary, as described in the specification, the distribution of the moisture throughout the kernel is uniform and, at the same time, low enough for the bran to be suitably dry for efficient decortication.

This aspect is crucial as the relatively low moisture content and its uniform distribution throughout the wheat kernel (the bran included), prior to decortication, which are achieved by means of the combination of the vibrations imparted and the specific holding time at the conditioning step, create the particular and necessary conditions for a surprising ease of decortication of the wheat grains and, at the same time, ease of milling of the whole endosperm following decortication.

As explained in page 4, last paragraph of the present application, such conditions cause a lower surface tension to establish itself at the bran-endosperm interface, thus preventing any fusion between the endosperm and the innermost bran layers to form, a problem which affects the prior art processes that apply a conditioning step prior to decortication. This, in turn, facilitates the decortication and the following grinding step, and increases product yields.

Following the decortication step, the relatively dry decorticated caryposes will not suffer from the drawbacks of the prior art (e.g. EP 0295 774) and will not cause clogging to each other and to the milling machinery.

Moreover, Anderson does not teach a conditioning step having a duration of 4-6 hours as recited in claim 1. Anderson, like the present invention, describes a milling process, which involves decortication prior to grinding. However, Anderson concerns a maize kernel, and this difference brings about specific requirements to the maize kernel, such as the suitability of a difference in moisture content between the hull and the endosperm, which is, on the contrary, discouraged.

Anticipation under 35 U.S.C. § 102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed Cir. 1987). At a minimum, the cited prior art does not disclose (expressly or inherently) a process for the production of **wheat flour or semolina** starting from respective caryopses, let alone steps a – d recited in claim 1.

Wheat not Corn

In contrast to the subject matter of claim 1, Anderson refers to improvements in the manufacture of dry milled **corn products, not wheat flour**. (See Anderson at col. 1, lines 8-10).

Applicants respectfully submit that milling techniques applicable for maize (or corn) are not the same and are not transferable to wheat grains. For example, maize kernels usually require a greater moisture content to be reached during conditioning, prior to wire brushing. This is corroborated by Anderson at col. 3, lines 14-16, which states that the *particular nature of the corn*, the temperature or the water, etc., affect the absorption time. As such, the particular methods used for corn would not be transferable to a completely different grain, such as wheat, as claimed.

Time 4-6 hours v. 5 minutes

In addition, while in Anderson, in fact, there is described a conditioning step aimed at restoring moisture in the hull prior to decortication, the subject matter of claim 1 aims at providing a uniform distribution of the moisture content prior to decortication. This difference is clearly reflected in the holding times of the conditioning step prior to decortication, which is of less than 10 minutes for Anderson and between 4 and 6 hours as recited in instant claim 1.

No disclosure of Intense Vibration

Furthermore, Anderson does not disclose a step of subjecting caryopses to intense vibration as recited in claim 1, step c. In the Office Action dated July 7, 2008, at page 3, the Examiner refers to Anderson col. 2, paragraph 6, lines 40-44 for the alleged disclosure of subjecting caryopses to intense vibration. However, Anderson does not disclose any application of vibration, and the cited section of Anderson merely refers to the contact of corn with rotary wire brushes, not to intense vibration as claimed.

Decortication followed by grinding not decortication followed by sifting

Finally, as recited in claim, the decortication step is followed by grinding, whereas in Anderson decortication is followed by sifting. Typically, in fact, maize grinding processes

involve separation of the germ and the hull and the breaking of the caryposes (as in Anderson, col. 3, lines 67-70) followed by sifting (col. 4, lines 9-11). In the method recited in instant claim 1, the decortication step is followed by grinding. This sequence of steps results in the decortication machinery removing the bran but not separating the germ. This in turn produces whole decorticated caryposes that undergo grinding prior to any sifting (page 3, lines 25-27 of the present application).

As such, Anderson fails to teach all of the elements of claim 1.

Accordingly claim 1 is allowable.

IV. Claim Rejections Under 35 U.S.C. § 103(a)

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Anderson in view of Graef US Patent No. 5,586,492.

The Examiner concedes that Anderson fails to teach subjecting the caryopses to vibrations of a frequency between 50 and 300Hz and therefore relies on Graef for this alleged disclosure.

Applicants respectfully disagree.

As discussed above in reference to claim 1, at a minimum Anderson fails to disclose a process for the production of wheat flour, fails to teach conditioning step having a duration of 4-6 hours, fails to disclose a step of subjecting caryopses to intense vibration and fails to teach a step of decortication followed by grinding.

Moreover, it would not be obvious to one having ordinary skill in the art to modify the method of Anderson to obtain the process as recited in claim 1, because Anderson is directed to a method for milling corn, a different grain to wheat.

Graef relates to a process for the wetting of cereals involving an apparatus for the wetting of a mixture of cereals with liquid, comprising a shaking apparatus. The cereal/liquid mixture is exposed for 2 to 15 seconds to a strong vibration (shaking at 80 Hz). See abstract.

Graef does not teach or suggest a process for the production of wheat flour, fails to teach or suggest a conditioning step having a duration of 4-6 hours, and fails to teach or suggest a step of decortication followed by grinding.

As such, Graef fails to ameliorate all of the deficiencies of Anderson.

Furthermore, a person having ordinary skill in the art would not have combined Anderson and Graef. In Anderson, the maize grain is wetted just prior to decortication to facilitate the maize grinding process. It is also emphasized in Anderson that such wetting/conditioning stage should be interrupted prior to the spreading of the moisture content beyond the husk layer.

In Graef, the cereals directly absorb the liquid, become transportable, and can be further processed, e.g. ground, without a substantial storage time. No value for moisture content is given. Thus, Graef is as to the moisture content of the incoming grain and the moisture content to be achieved.

For these reasons, the skilled person starting from Anderson would have no interest in looking into Graef for teachings on how to improve water penetration into the caryopses.

Moreover, it would not be obvious from Anderson that uniformity of the water penetration of the caryopsis is even desirable. Furthermore, there is no indication in Graef as to the applicability of such a process to the moisture content range of Anderson. If, however, Anderson and Graef were combined, the subject matter of claim 1 would not have been disclosed.

By applying the teachings of Graef to the first conditioning step of the process by Anderson a person having ordinary skill in the art would not arrive at the subject-matter of claim 1 because the holding time of Anderson is different to that of the present application and the holding time of Graef is not even necessarily contemplated (see column 5, lines 49, 50 of Graef and column 2, lines 36-41). In addition, the skilled person would then follow such optional first conditioning step with a second conditioning step aimed at wetting the bran only. This would defeat the purpose of the first wetting step and jeopardize the efficiency of the decortication step. Product yields would also decrease as a result and the machinery would be clogged up by the soggy endosperm.

Furthermore, by applying the teachings of Graef to the second conditioning step of Anderson the skilled person would not arrive at the subject-matter of claim 1 because the vibration coupled with a holding time of less than ten minutes (as taught in Anderson) would not achieve sufficient spreading of the moisture throughout the kernel. Again, the subsequent steps would be affected by this, leading to the same complications discussed for the previous case scenario. According to the teaching of Graef, the holding time is either unnecessary or of a non-appreciable period of time that is hypothetically estimated to be variable between 30 minutes and 2 hours. Neither Anderson nor Graef, therefore, teach a conditioning step of 4 to 6 hours.

Moreover, the process as recited in claim 1 requires only one conditioning step, while at the same time, yielding higher endosperm recovery due to the eased decortication.

In addition, the process as recited in claim 1 has results in improved hygienic conditions, given that the decorticated grains do not stick to each other. This, in turn, brings about an improved smoothness of the process, as machinery is not clogged up and is not in need of frequent interruptions for cleaning.

Therefore claim 1 is allowable over the cited prior art references.

Furthermore, claims 2, 3 and 5 depend from and further define the subject matter of claim 1 and therefore are also allowable.

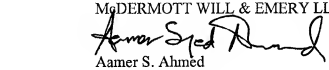
V. Conclusion

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Aamer S. Ahmed
Registration No. 58,958

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 ASA:MWE
Facsimile: 202.756.8087
Date: September 30, 2008

Please recognize our Customer No. 20277 as our correspondence address.